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The transformative power of the university

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Overview

1. The university and its surrounding landscape

2. The lock-in of the modern university

3. Contributing to a sustainable society

The university and its surrounding landscape

1 Universities have a history of 800 years

What are universities for? (paper LERU, Boulton and Lucas, 2008 - just prior to the monetary crisis of 2008-2011):

"A university is a place…whither students come from every quarter for every kind of knowledge…in which the intellect may safely range and speculate. It is a place where inquiry is pushed forward…discoveries perfected and verified…and error exposed, by the collision of mind with mind, and knowledge with knowledge." (Newman, 1852)

1   The deepening social divide

But the Humboldtian "elite" university disappeared already after World War II: since 1960-1970 mass-education resulted in explosive growth of universities.

At the end of 1980'ies governments were no longer able to follow the growth financially - from then on growth meant less funding per student, increasing tuition fees and privatisation.

1 The deepening social divide

Dramatic growth of number of students reflects successful emancipation of lower/middle class. Participation changed from about 5% to 40% in OECD countries (Netherlands) - growth is stalling now (e.g. Hesa report UK)!

At the same time, and ironically, HE contributes significantly to the *growing divide* between have's and have-not's. A society with about 50% highly educated (and the remainder not), is *not sustainable* - given division of welfare and opportunities on the labor market.

1 The deepening social divide

High tuition fees and privatization of HE are instrumental in shaping this divided society ('zipcode is more important than talent'). But even more important than financial barriers are the cultural ones: Dutch report (Inspection Education, 2018) shows that groups increasingly function within their respective "bubbles".

Deepening social divide in many countries might even affect the political stability, the least inclusive ones (with the highest tuition fees) are running the greatest risk.

1 Increasing protectionism and the post-truth society

But there is more: since the financial crisis of 2008–2011, the world has entered a new era defined by sharp contrasts and increasing protectionism.

This issue is further exacerbated by worldwide political instability and migrant flows, creating the substrate of populism and the so-called *'fact-free'* or *'post-truth'* society.

The elite position of the academic world will increasingly meet with criticism – see yellow vest protest in France, and latest statements of populists in Italy and the Netherlands.

1 Increasing protectionism and the post-truth society

The present separation between the large political blocks, and the increasing protectionism, is bound to have a major impact on the academic world, as well as on the extent to which knowledge and talent can be shared internationally.

For example, foreign students are essential to the viability of universities in the USA, UK and Australia - the flows of these students will certainly be affected. A "business-model" based on international students is no longer viable.

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<table>
<tr><td>**1**</td><td>Summary</td></tr>
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The landscape surrounding the university has changed profoundly, but HE reacts slowly: it is business as usual, in spite of the serious possibility of "over-education" in a strongly changing labour market, and a deepening social divide.

The university is losing support in society and is not believed to deliver.

The businessmodel of many universities in which student-growth guarantees income, will not work due to aging (resulting in less students) and decreasing flows from Asia. The classic reflex of universities to ask for more money (either from students or from government) is a dead-end street and leads to a *crisis of credibility*.
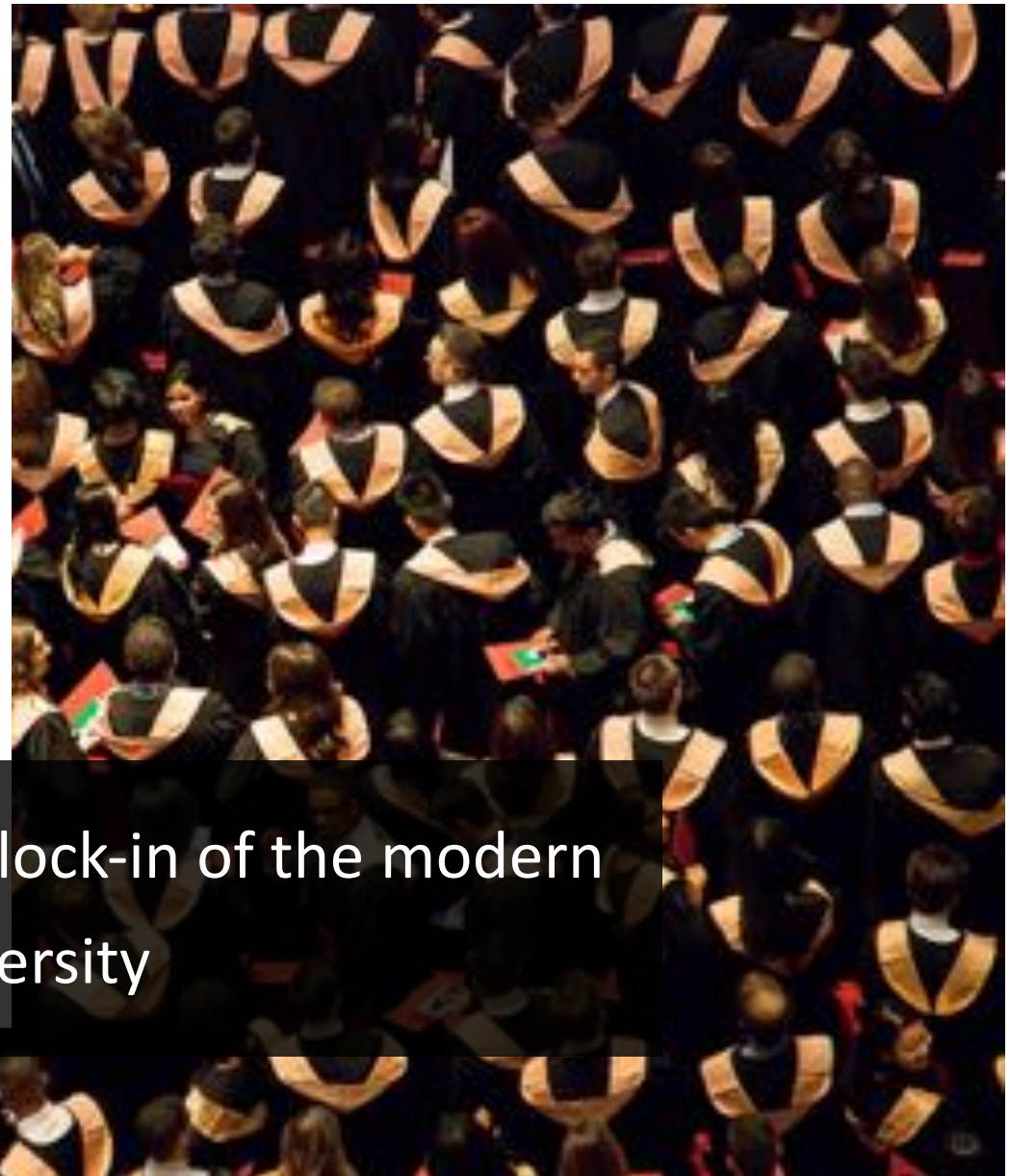
The lock-in of the modern university

2 The lock-in of the modern university

Given all the changes, universities are faced with difficult choices: the present system is, for many reasons, **not** sustainable.

Moreover, some things are moving rapidly (digitisation, artificial intelligence) – that means that universities need to respond rapidly as well.

Yet, the university is slow to respond – to some extent there is institutional lock-in (a.o. due to dependency on external funding, rankings, and lack of clear mission).

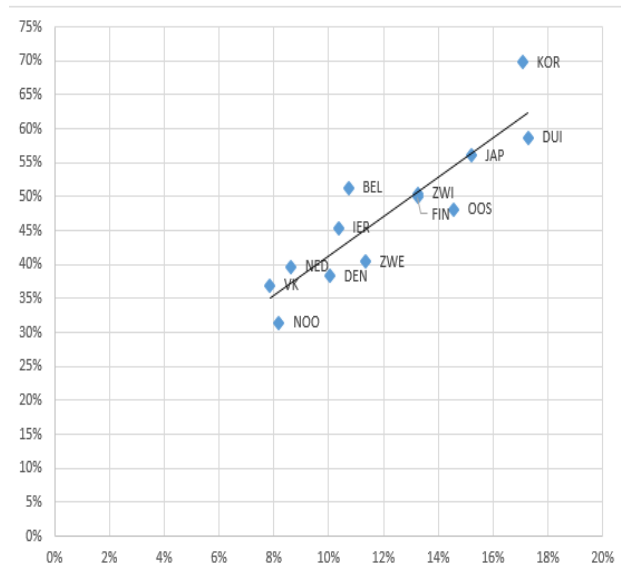# 2 The lock-in of the modern university and outside funding

Figure 1: Relationship between public R&D spending on (technical) sciences (vertical) and proportion of workforce in manufacturing industry (horizontal). After Rathenau, 2019a.
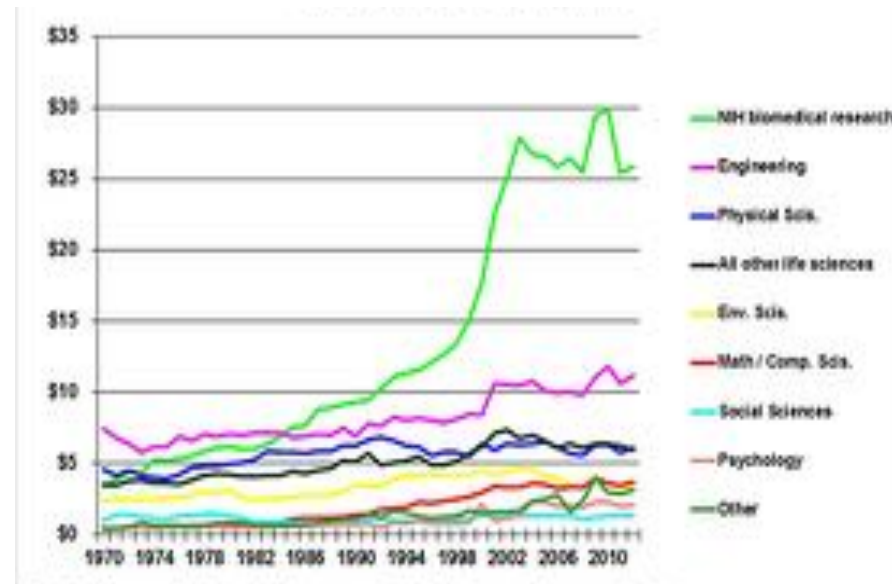
Figure 2: Trends in federal research by discipline USA, 1970-2012. After Benjamin et al., (2017).

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2 The modern university is too limited in its roles

Ideological apparatus	Grooming skilled workforce
Generator of knowledge	Selection and socialization of elite

The four roles of the university (Castells, 2001)

2 The modern university is too limited in its roles

Grooming skilled workforce

Generator of knowledge

The modern status of the four roles

2 The modern university is not transformative

The transformative power of the university

Clearly, the institutional lock-in and technocratic view on its role in society, contribute to the limited transformative power of universities. Brennan et al 2004 ("*The role of universities in the transformation of societies"*) show that universities have almost no impact on economical, political, and social transformations, and only a limited impact on cultural transformations.

To be meaningful in society requires a new vision on the role of the university.

Part 3: Contributing to a sustainable society

3 New models of being a university

Given all the changes, universities are faced with choices - whether they want it or not. Choices are content-driven and form-driven. Both are related but not completely dependent on each other.

Realize that decissions taken now, will bear fruit in 5-15 years : the university is a supertanker which visibly changes course only very slowly (education faster than research).

3 New models: choices in form

Campus

Research university

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Teaching university

Civic university

Digital / Debundled

Digital / Life Long Learning
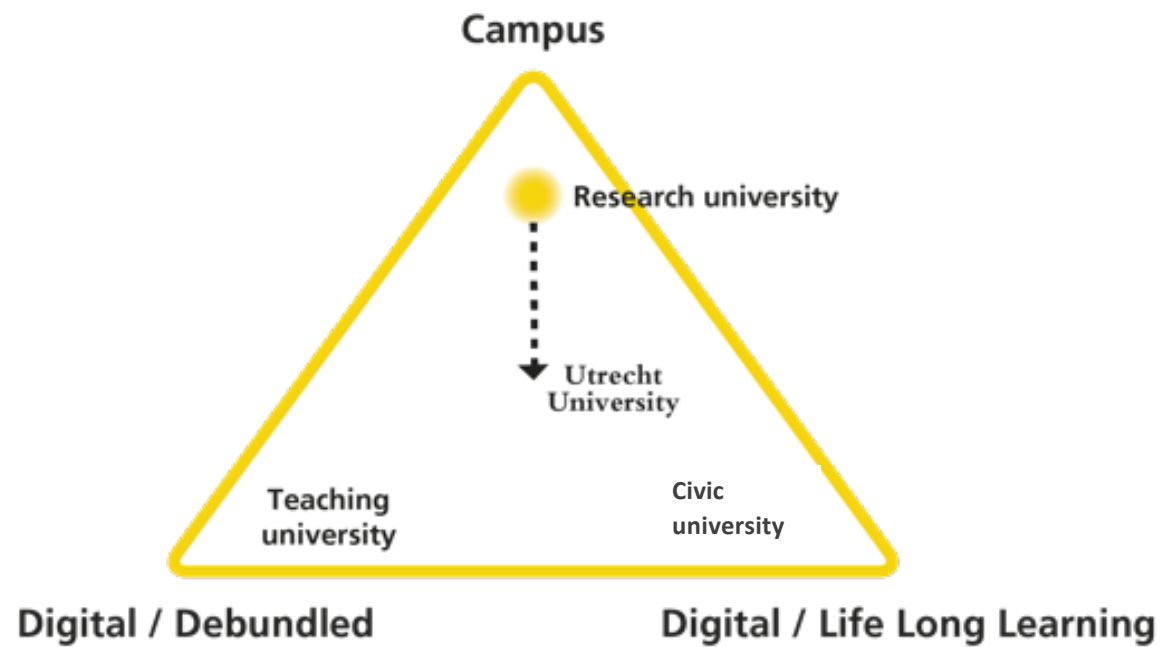
3 New models: choices in content

Research university

Utrecht University

Professional
(vocational/teaching/enterpreneurial)
university

Civic university

Utrecht University
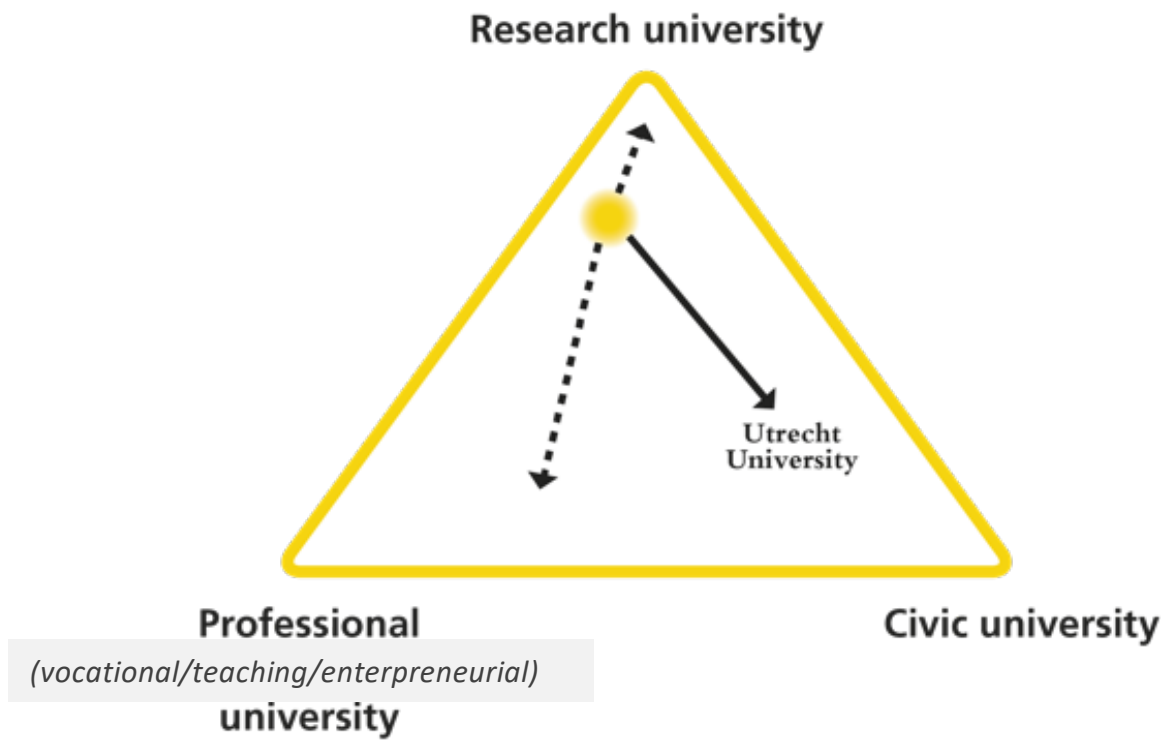
3 | The civic or engaged university

The future belongs to the civic or engaged university.

Quality of teaching is essential; we need to realize that we are educating the leaders of the future. Students should be trained to be responsible citizens. Research should be inspirational and a catalyst to society.

3 The civic university

Societal problems will dominate the research agenda. The university should contribute with technological innovation, but may even more with knowledge on how to redistribute scarce resources and to achieve stable forms of governance.

Output should not be measured in only economic terms: impact is key. The notion of 'wisdom' (knowledge becomes wisdom when it actually enriches people's lives) is important.

3 The civic university

In order to keep or regain support from society, universities must be aware of the social divide and gap in education. This gap can only be bridged through adequate outreach: not only by stating the facts, but also by putting them in context. Digitisation and LLL should be at the heart of these attempts.

Open Science is crucial - aims to make scientific research, data and dissemination accessible to all levels of an inquiring society (EU commission: *"new knowledge is created through global collaborations involving thousands of people from across the world and from all walks of life".*)

3 We now see the transition to another type of university

x 1000

Humboldtian stage	Mass-education stage	Unbundled stage
Elite	Mass-education	Flexible learning
Knowledge-driven	Economy-driven	Impact-driven
Initial learning	Initial learning	Life Long Learning
Brick-and-mortar	Brick-and-mortar	Blended
Public	Public/private	Private/public
No technology	Developing technology	Highly technological
Teaching-intensive	Research-intensive	Civic?

300

250

200

150

100

50

0

1900   1920   1940   1960   1980   2000   2020

2040

Rise and fall of students

3 — A new role for the university

Sustainability is no 1 issue for the future: focus on it could re-connect the university to society. The university should be a thought-leader and example.

If we are claiming that we educate the leaders of the future and train them for responsible citizenship, sustainability should be in every teaching program.

In research, there should be focus on crossroad of fundamental research and societal challenges - address sustainability problems in a visible way, be active in the region. Living labs are good examples to lead the way to the future

3 A new role for the university

There is a need and urgency: if we don't embrace sustainability, we are no longer credible to our students (compare rapidly changing perception of e.g. Shell).

More than rankings and even excellence, the leadership that universities show and the examples they set, will count. Student will chose universities for their track-record in "thinking of the future". Again, sustainability is key in this respect .

This should shine through: in the research-strategy of the university, in the teaching programs, and in the campus. Ideally, the latter is living lab. And students should have a strong voice: it is their future we are talking about…

3 From theory to practice…….how to overcome barriers

This is all about change-management, about turning the university, which is a notoriously difficult process: no one is against sustainability, but no one makes the first move. Change starts with creating a morally convincing narrative and using the urgency it should generate.

Day-0 is a good example (good narrative and widely accepted moral position – day 0 is the day that Cape Town would run dry…..but which was pushed back because people started to drastically cut back on water-consumption in view of the prospect of running completely dry).

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3 From theory to practice.......how to overcome barriers

The timeline of serving meat in university restaurants of Utrecht University

- 2013/ Green Office opens doors – thinktank and pressure group
- Increasing pressure from students (discussions with board of university on green banking, avoiding Shell contract research, greening the campus)
- Strategy of Utrecht University renewed 2016 – sustainability confirmed as key area
- Public statement by rector: "no meat in restaurants"
- Huge public debate – many against, but also many in favor
- 2018/ At all official occasions no more meat and only vegetarian snacks

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Generalized scenario:

- Operate from a strong moral position and clear mission statement
- Preferably use a general umbrella, in this context Sustainable Development Goals
- Try to convince and find ambassadors. Line up pressure groups (Green Office).
- The debate should be based on general principles, ie the moral value of sustainability, but practice should focus on a few well-selected, iconic projects.
- Use clear ways to illustrate value and progress (electric transport on campus, change to "green" banking etc).
- Be persistent…….

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Bright minds, **better future**